

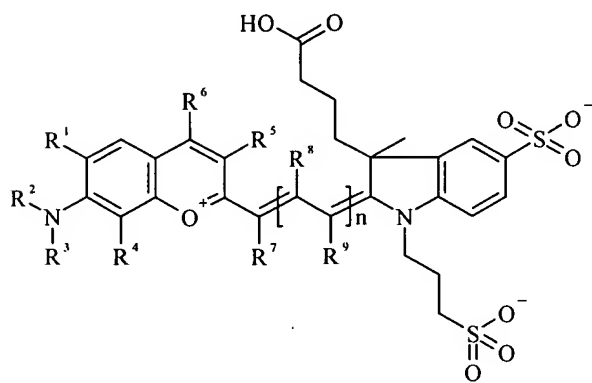
### Amendments to the Claims:

Please cancel pending claims 1-7 without prejudice to their subsequent reintroduction into this application or their introduction into a related application, and enter new claim 8. The following list of claims replaces all prior versions and lists of claims in the application:

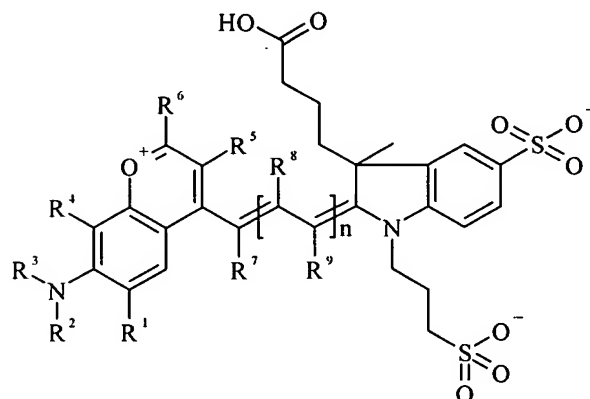
### Listing of Claims:

Claims 1-7. (Cancelled)

Claim 8. (New) An asymmetrical polymethine-based hydrophil marker of general structure **Ia** or **IIa**



**Ia**



**IIa**

where

- n stands for numerical values 0, 1, 2 or 3; substituents R<sup>8</sup> and R<sup>9</sup> occurring for n (doubled or threefold for n = 2 or 3 respectively) may be the same or different,
- R<sup>1</sup> – R<sup>9</sup> are the same or different and may be hydrogen, alkyl-, *tert*-alkyl, aryl-, carboxyaryl-, dicarboxyaryl, heteroaryl-, cycloalkyl-, heterocycloalkyl-, alkyloxy-, alkylmercapto- ( with "alkyl" and "cycloalkyl" also including olefin linkage residues), aryloxy-, arylmercapto-, heteroaryloxy-, heteroarylmercapto-,hydroxy-, nitro- or cyano residues and R<sup>1</sup> and R<sup>2</sup>, R<sup>2</sup> and R<sup>3</sup>, R<sup>3</sup> and R<sup>4</sup>, R<sup>5</sup> and R<sup>7</sup> can form one or more aliphatic, heteroaliphatic or aromatic rings,

- at least one or more of the  $R^1 - R^9$  substituents may constitute solubilizing or ionizing or ionized substituents, such as  $SO_3^-$ ,  $PO_3^{2-}$ ,  $CO_2H$ ,  $OH$ ,  $NR_3^+$ , cyclodextrins or sugars, which determine the hydrophil characteristics of dyes; these substituents may also be linked to the actual basic chromophore by means of an aliphatic or heteroaliphatic or cyclical spacer group,
- at least one of the  $R^1 - R^9$  substituents may stand for a reactive group permitting covalent linkage of the dye with another molecule, where the reactive group is selected from the group consisting of: isocyanates, isothiocyanates, hydrazines, amines, mono- and dichlor or mono- and dibromotriazines, aziridines, sulfonylhalogenides, N-hydroxysuccinimide esters, imido-esters, glyoxals or aldehydes for amin- and hydroxy functions or maleimides or iodacetamides for thiol functions and phosphoramidites for the marking of DNA or RNA or fractions thereof, and the reactive group is linked to the actual chromophore via an aliphatic or heteroaliphatic spacer group consisting of a structural element  $[(CH_2)_a-Y-(CH_2)_b]_c$ , in which Y - the same or different - may be a  $CR_2$ -, O-, S-,  $SO_2$ ,  $SO_2NH$ -,  $NR$ -,  $COO$  or  $CONR$  function, with R assuming the functions of  $R^1 - R^9$  and a and b - the same or different - representing values 0 - 18 and c values 1 - 18, and
- $R^6$  represents a substituent which, in  $\alpha$  position relative to the pyran ring, displays a quaternary or  $sp^2$ -hybridized C atom; substituents  $R^6$  and  $R^5$  may also form an aliphatic or substituted aliphatic or aromatic ring system.